



United States Department of the Interior

FISH AND WILDLIFE SERVICE

75 SPRING STREET, S.W.

ATLANTA, GEORGIA 30303

September 25, 1985

TO: Congressional Delegation; Interested Representatives of Federal, State, County, and Local Governments; Citizens' Groups; Landowners; and Others

We are pleased to provide you a copy of the Land Protection Plan for Lower Hatchie National Wildlife Refuge. This plan was prepared to guide the Fish and Wildlife Service in future actions that are necessary to protect the wildlife resources within the refuge. The Director of the Service has approved this plan for distribution and implementation.

The plan does not diminish the rights of any landowners, nor does it constitute an offer to purchase land or interests in land. It will, however, provide the Service with general guidance in making decisions on future cost-effective wildlife protection techniques and will also inform interested parties of the protection techniques to be used by the Service. Any land acquisition will be subject to normal constraints such as availability of funds and willingness of landowners to negotiate. The owners of all property identified in this plan will be personally contacted regarding the protection techniques being considered.

The plan is subject to periodic revision, so any comments or suggestions you care to make will be welcomed. Your interest in the protection of the important resources at Lower Hatchie is greatly appreciated.

Sincerely yours,

James W. Pulliam, Jr.
Regional Director

Enclosure

LAND PROTECTION PLAN
FOR
LOWER HATCHIE NATIONAL WILDLIFE REFUGE
LAUDERDALE AND TIPTON COUNTIES, TENNESSEE

Prepared by
U.S. Department of the Interior
Fish and Wildlife Service
Southeast Region
Atlanta, Georgia

April 1985

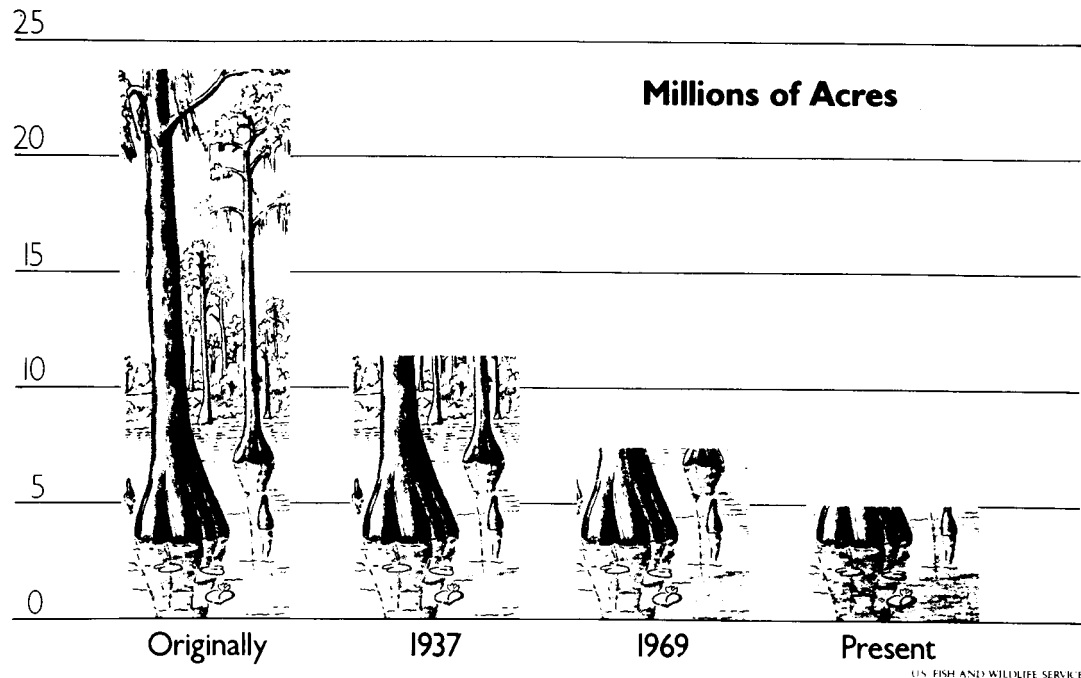
TABLE OF CONTENTS

	<u>Page</u>
PURPOSE	1
STATUS	2
MAPS	2
PROPOSED ACTION	2
PROGRAM OBJECTIVES	2
RESOURCE PROTECTION TECHNIQUES	3
A. No Action	3
B. Acquisition/Management by Others	4
C. Less-Than-Fee Acquisition	4
D. Fee Acquisition	5
E. Summary	5
COORDINATION	5
SOCIO-CULTURAL ASPECTS	5
A. Impact on Economy and Off-Refuge Developments	5
B. Impact on Aesthetic, Historical and Archeological Values.	6
C. Impact on Public Use	6
D. Impact on Neighboring and Refuge Landowners	7
SUMMARY OF PROPOSED ACTION	7
TABLE 1 -- Land Protection Priorities and Proposed Methods of Preservation	9
FIGURE 1 -- Preservation Priorities	11

PURPOSE

The Mississippi River Alluvial Plain is one of the most important wintering areas for waterfowl in the United States. The seasonally flooded bottomland hardwoods and associated permanent water areas play a key role in sustaining continental migrating and wintering waterfowl populations. Midwinter inventories for the 1972-1976 period show that an average of 24 percent of the continental mallard populations winter in the Plain. However, reduction of bottomland hardwood areas is having, or will continue to have, a detrimental impact on mallard populations.

Originally, the Mississippi River Alluvial Plain was almost entirely forested. Clearing the bottomland hardwoods for agricultural purposes started immediately upon settlement of this area by the early pioneers. In 1937, there were an estimated 11.8 million acres of bottomland hardwood forests in the Mississippi River Alluvial Plain; however, only about 5.2 million acres of bottomland hardwood forest were left in 1978.



As the graph above illustrates acreages of bottomland hardwoods have been greatly reduced due to agricultural, commercial, and residential development. Consequently, environmental and wildlife values are diminishing.

The purpose of Lower Hatchie National Wildlife Refuge is: (1) To preserve and protect approximately 8,624 acres of important habitat needed for migrating and wintering waterfowl; (2) to serve as an important stepping stone for Canada geese, and thereby enhance the continued success of reestablishing wintering flocks of geese in the lower reaches of the flyway; and (3) to provide important sanctuary for wintering mallard ducks in extreme western Tennessee. Coincidental benefits of the refuge are the public recreational and educational uses that it provides.

STATUS

Acquisition of the refuge has been ongoing since the project was approved by the Migratory Bird Conservation Commission on May 20, 1980. The following is a summary of current Fish and Wildlife Service (FWS) ownership and projected acquisition through 1986.

Acres acquired through FY 1984	1,990
Acres funded for FY 1985	600
Acres planned for FY 1986	2,000
Acres remaining to be acquired	4,034
Total Project	8,624

MAPS

The location and acquisition boundary of the refuge are shown in Figure 1 along with information on the ownership pattern and protection priorities.

PROPOSED ACTION

The FWS proposes to acquire fee title to or conservation easements on the remaining privately-owned land within the refuge boundary.

PROGRAM OBJECTIVES

Acquisition of the refuge is part of a national preservation program designed to protect remaining bottomland hardwood areas identified as being significantly important to wintering waterfowl. All bottomland hardwood habitat in the Mississippi Plain is ranked seventh of 33 categories of waterfowl habitat in the FWS's Migratory Bird Habitat Preservation Program.



The FWS ranked the refuge eighth of 11 important bottomland areas identified in Tennessee. The 11 areas are essential for the maintenance of healthy wintering waterfowl populations.

The objectives of the refuge are: (1) To provide habitat and sanctuary for up to 25,000 Canada geese within "stepping stone range" (50 miles) of a traditional goose wintering area to facilitate the southerly extension of the current wintering range of Canada geese and (2) to provide food, water, and protection for up to 50,000 mallard ducks during the migration and wintering seasons.

RESOURCE PROTECTION TECHNIQUES

Several techniques were considered to determine the most appropriate method of protection that would allow cost-effective means of providing long-term protection of wildlife resources, while requiring only minimal development of facilities, and allowing public use. The techniques reviewed are:

- No Action - Relying on existing Federal or State legislation or local zoning ordinances to protect the target resource
- Acquisition/Management by Others
- Acquisition of Less-Than-Fee-Interest
- Acquisition of Fee Title

A. No Action

Under the "no action" technique, the FWS would not take any additional action other than to rely on the existing Federal, State and local regulatory authorities to preserve the resource values of private land within the refuge.

The "no action" technique would cause the remaining acreage of natural bottomland hardwood waterfowl habitat to be irretrievably lost or severely degraded. Additional drainage and clearing operations or time monoculture would further alter or destroy this natural habitat. Wintering populations of waterfowl that utilize the area would, with habitat change, be forced to disperse to the few remaining forested wetlands in the flood-plain basin to meet resting and roosting requirements. Other wildlife would be displaced or lost entirely with changing land use. Under present land and resource use, public outdoor recreational opportunities would not increase but would probably decrease with any land use change.

There are currently no State regulations or local ordinances which would protect private woodlands within the acquisition boundary from land use change.

B. Acquisition/Management by Others

No local government agency or private conservation organization has expressed any interest in acquiring or managing the privately-owned land within the refuge.

C. Less-Than-Fee Acquisition

This technique of protection would give the FWS the ability to prevent certain land uses that would be incompatible with refuge objectives while allowing the property to remain in private ownership. Land uses that have little or no conflict with refuge objectives could be retained by landowners.

Easements will most likely be useful when: (1) Some, but not all, private uses are compatible with refuge objectives, and (2) the owner desires to continue current types of use and occupancy of the land under terms set by the FWS.

Land uses which need to be controlled or restricted by a conservation easement are:

1. Development (commercial, industrial, residential)
2. Alteration of natural topography
3. Alteration of the native vegetative communities

Some land uses which probably could be retained in private ownership are:

1. Hunting rights
2. Grazing rights (in accordance with Soil Conservation Service stocking rates)
3. Timber management (in accordance with good silvicultural practices which maintain the native forest communities)

Conservation easements appear to be the most cost-effective technique to protect most of the bottomland hardwood habitat on the refuge. The tracts recommended for easement acquisition are identified in Table 1.

The FWS may also enter into management agreements with owners of private lands which would allow for public access and management or rehabilitation of habitat on real property not in Federal ownership. The FWS may also maintain and operate programs in connection with the agreement as appropriate. In addition, management agreements on privately-owned land may be used as interim protection measures when funds are unavailable for acquisition or used to provide for exchange of services and financial assistance. The viability of these agreements will be determined during negotiations with land owners.

D. Fee Acquisition

A fee title interest will be acquired where refuge resources require permanent protection not otherwise assured, where land is needed for visitor use development not provided through other means, where proposed land use could adversely impact the refuge resources, or where refuge habitat management programs require absolute control of the property. Fee title transfers all rights of ownership (in this case to the Federal Government) and, therefore, provides the best assurance of long-term resource protection, visitor use development, and habitat improvements.

E. Summary

The use of a combination of fee title and less-than-fee acquisition will be used to ensure refuge preservation. The specific method that will be used on each tract will depend on the nature of habitat threatening uses and availability of future acquisition funding.

COORDINATION

A. Local

The FWS has either directly or indirectly contacted essentially all local landowners to apprise them of the refuge's purpose and objectives.

B. State

The Governor of Tennessee provided his approval of the refuge in a September 4, 1979, letter to the Southeast Regional Director of the FWS. Additionally, the Mississippi-Arkansas-Tennessee Council of Governments/Memphis Delta Development District favorably endorsed the refuge on August 1, 1979.

Most recently, the Executive Director, Tennessee Wildlife Resources Agency, spoke in favor of the refuge at the February 15, 1983, meeting of the Migratory Bird Conservation Commission.

SOCIO-CULTURAL ASPECTS

The existence and function of a refuge cannot be separated from the neighboring land and community in which it exists. Refuge impacts on local economy, off-refuge developments, historic sites, public use, and area residents are discussed below to ascertain and examine potential benefits or problems which may arise.

A. Impact on Economy and Off-Refuge Developments

Since essentially all lands surrounding the refuge have been cleared and converted to agricultural use, off-refuge development and economic land use will not be materially affected by federal acquisition.

The respective county will receive annual Federal payments based upon either three-fourths of 1 percent of the adjusted land value or 25 percent of the receipts from the sale of refuge products, whichever is larger. These payments are to alleviate the loss of local property taxes by the removal of federally acquired lands from the county tax roll. As forests become mature and are managed on a sustained yield basis, revenue to the county from the sale of products could exceed current tax payments.

B. Impact on Aesthetic, Historical, and Archeological Values

The proposal is a preservation measure and in general should have no adverse impacts on existing aesthetic values. Even though there are no known archeological or historical sites within the refuge, all proposed development sites will be thoroughly examined to ensure that latent archeological value will be preserved.

C. Impact on Public Use

Hunting and fishing are important outdoor recreational pursuits of area residents. Waterfowl hunting has historically been a major activity and attraction in west Tennessee. Since most of the Tennessee bottomland hardwoods have been cleared for agricultural, residential, or industrial development, waterfowl hunting areas have rapidly diminished.



Preservation of the refuge habitat will probably increase the number of use-days of hunting or fishing. Under national wildlife refuge management, hunting by the public may be permitted on up to 100 percent of the area. Nonconsumptive activities like wildlife observation and photography will also be enhanced by the refuge.

D. Impact on Neighboring and Refuge Landowners

The impact of FWS acquisition and management of the refuge is expected to be minimal. No landowner uses his property as a permanent residence; therefore, relocation activities and expenses of any significance are not expected.

SUMMARY OF PROPOSED ACTION

As previously described, the FWS proposes to protect the remaining privately-owned habitat within the refuge by acquiring fee title or less-than-fee title (easements, management agreements) interest from willing sellers. Table 1 summarizes the protection techniques the FWS feels are the minimum interests necessary to preserve the refuge resources.

The private property within the refuge has also been prioritized for acquisition using the following criteria:

1. Biological significance
2. Existing and potential threats
3. Significance of the area to refuge management/administration
4. Existing commitments to purchase or protect land

Priority Group I

The highest priority for land protection in the refuge is to acquire tracts (12), (33b), (35d), (35f), and (36) in fee title. These tracts are key to the success of a planned Canada goose management area that will support as many as 25,000 Canada geese from the Mississippi Valley flock. Fee title acquisition is the minimum interest necessary for the FWS to obtain the management flexibility it will need to successfully implement the management program. Moreover, any acquisition of less-than-fee interest would not be cost effective, since the cost of a conservation easement that provides the needed control would equal the cost of fee title acquisition.

Tract (13) is a 637-acre tract of bottomland hardwood habitat adjoining the Hatchie River. This tract has exceptional waterfowl value, especially for wintering mallards. This tract will be acquired in fee title to satisfy an existing commitment the FWS has made to the landowner.

Priority Group II

Conservation easements are recommended as the minimum interest necessary to preserve the habitat on all tracts within this priority group. These tracts of bottomland hardwood habitat have high waterfowl value by virtue of their location adjacent to the Hatchie River. These tracts have a higher probability of flooding than those found in the following priority group.

Priority Group III

The tracts included in this group are peripheral ownerships of relatively small acreage; however, the waterfowl values are as great as tracts in either groups I or II. Conservation easements are the minimum real estate interest necessary to preserve tracts (16), (17), (18), and (18a). No action is recommended on tract (15) because the land has been cleared for agricultural production.

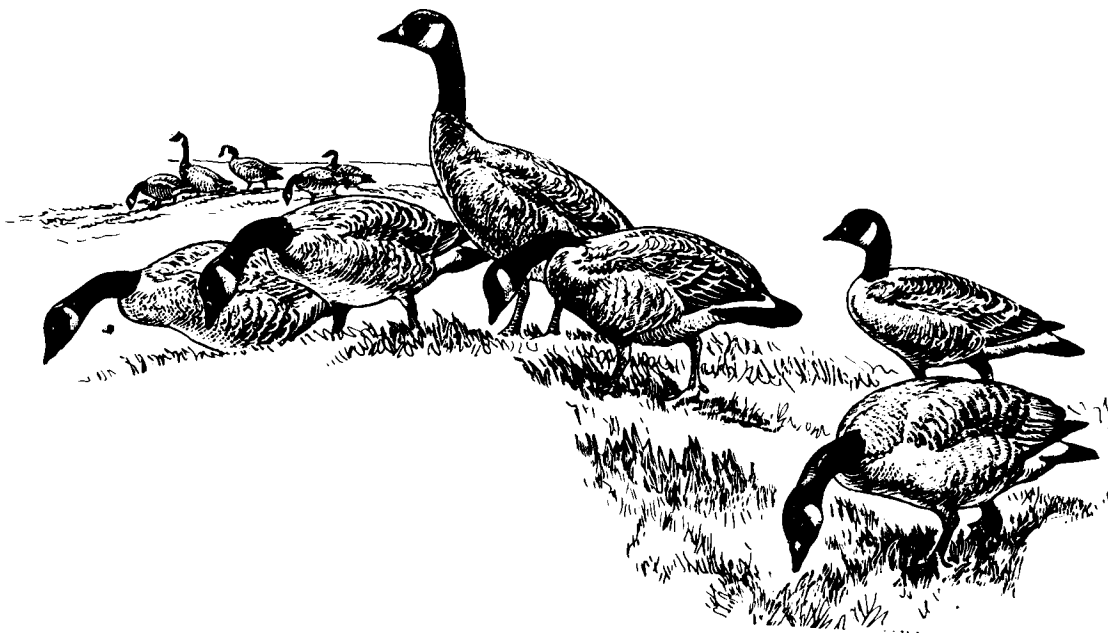


TABLE 1

LAND PROTECTION PRIORITIES AND PROPOSED METHODS OF PRESERVATION

The privately-owned land within the refuge boundary has been prioritized for preservation to facilitate timely protection of those areas of most importance to wintering waterfowl (see Figure 1).

The minimum interest necessary to protect the resource and meet refuge objectives has been determined by ownership. Conservation easements would satisfactorily preserve the hardwood habitat without taking the property out of private ownership. The tracts identified for fee title acquisition require Federal ownership either to satisfy an existing commitment to purchase the property in fee title or because refuge management programs require the control provided by fee title ownership.

Priority	Tract No.	Approximate Acreage	Method of Protection (minimum interest)
I	33b	1,320	Fee Title
	35d,f	229	Fee Title
	36	614	Fee Title
	12	120	Fee Title
	13	637	Fee Title (Existing Commitment)
	14	2,000	Conservation Easement
	11	603	Conservation Easement
	21	456	Conservation Easement
<hr/>			
II	23	23	Conservation Easement
	24	10	Conservation Easement
	25	10	Conservation Easement

	26	91	Conservation Easement
	27	6	Conservation Easement
	28	4	Conservation Easement
	30	72	Conservation Easement
	32	72	Conservation Easement
	34	257	Conservation Easement
<hr/>			
III	15	25	No Action
	16	6	Conservation Easement
	17	19	Conservation Easement
	18, a	60	Conservation Easement

FIGURE 1 LOWER HATCHIE NATIONAL WILDLIFE REFUGE LAUDERDALE AND TIPTON COUNTIES, TENNESSEE

UNITED STATES
FISH AND WILDLIFE SERVICE
89 45

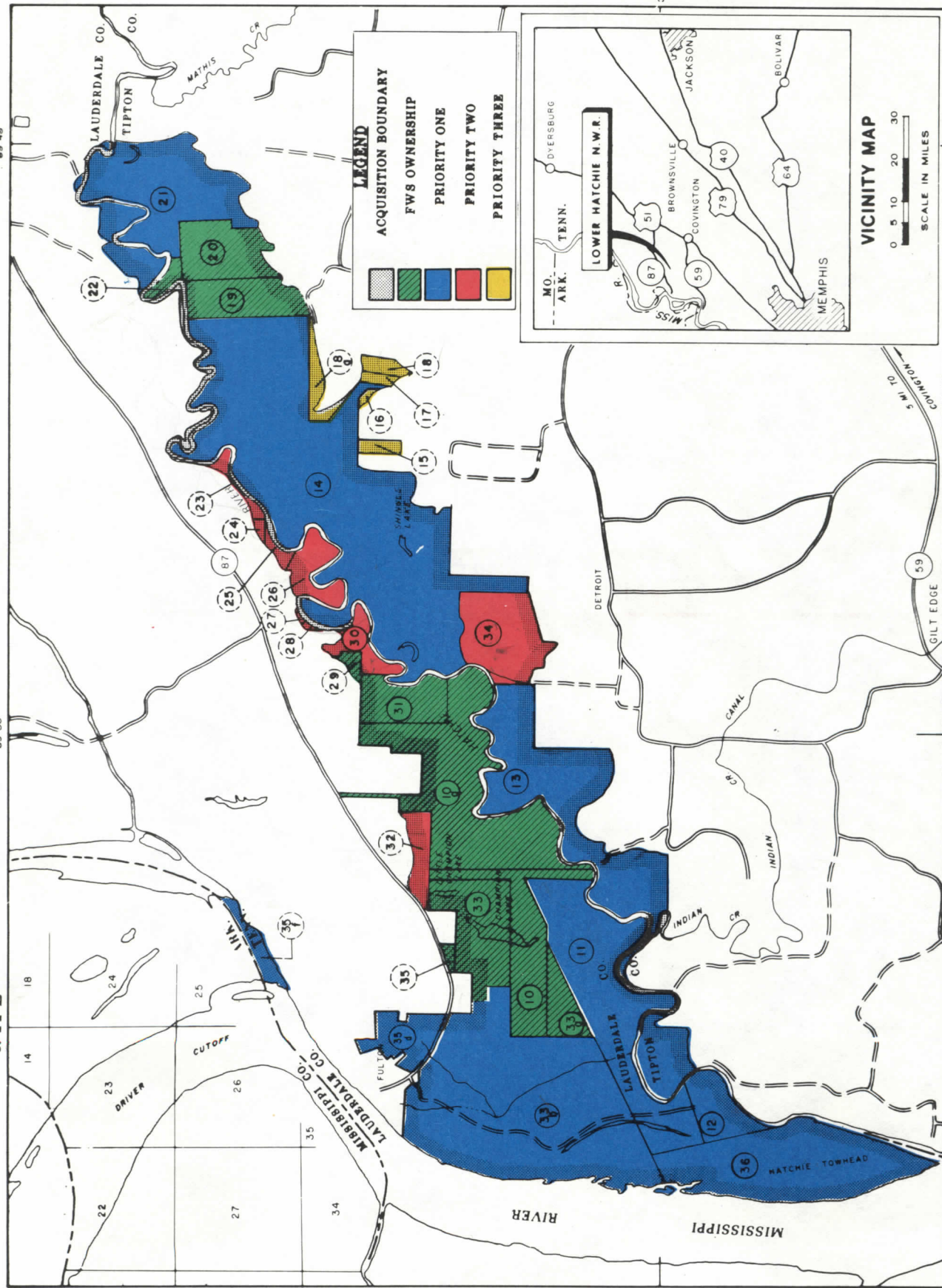
UNITED STATES
DEPARTMENT OF THE INTERIOR

R 11 E

T 12 N

11

35 35



COMPILED IN THE DIVISION OF REALTY
FROM SURVEYS BY USGS

ATLANTA, GEORGIA

JUNE, 1970

4R TENN 967 401